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ARNOLD & PORTER LLP

Kristan L. Lansbery, Ph.D.
Kristan.Lansbery@aporter.com

202.942.5186
202.942.5999 Fax

555 Twelfth Street, NW
Washington, DC 20004-1206

March 23, 2007

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Re: U.S. Application No. 10/590,211
Filed: August 22, 2006
Title: Methods for Genetic Diversification in Gene Conversion Active Cells
Applicants: Jean-Marie BUERSTEDDE *et al.*
Atty. Docket: 21027.002/P30753US00

Sir:

The following documents are forwarded herewith for appropriate action by the U.S. Patent and Trademark Office (PTO):

1. an Information Disclosure Statement;
2. a Form PTO-1449 (listing and supplying 29 references); and
3. a return postcard.

Please stamp the attached postcard with the filing date of these documents and return it to our courier.

Applicants do not believe any fees are due in conjunction with this filing. However, if any additional fees are required in the present application, including any fees for extensions of time, then the Commissioner is hereby authorized to charge such fees to Arnold & Porter LLP Deposit Account No. 50-2387 referencing matter number 21027.002. A duplicate copy of this letter is enclosed.

Respectfully submitted,

Kristan Lansbery

David R. Marsh (Reg. No. 41,408)
Kristan L. Lansbery (Reg. No. 53,183)

Enclosures

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jean-Marie BUERSTEDDE *et al.*		Art Unit:	To Be Assigned
Appl. No.:	10/590,211	Examiner:	To Be Assigned
Filed:	August 22, 2006	Confirmation No.	To Be Assigned
For:	Methods for Genetic Diversification in Gene Conversion Active Cells	Atty Docket.	21027.002/ P30753US00

Information Disclosure Statement

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The attention of the Examiner is invited to consider the references listed on the attached Form PTO-1449. Copies of the references are submitted herewith.

It is respectfully requested that the information above be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

Certification and/or Fee

Because this Information Disclosure Statement is being submitted prior to issuance of the first action on the merits of the above-captioned application, no certification or fee is required.

Respectfully submitted,

Kristan Lansbery

David R. Marsh (Reg. No. 41,408)
Kristan L. Lansbery (Reg. No. 53,183)

Date: March 23, 2007

ARNOLD & PORTER LLP
555 Twelfth Street, N.W.
Washington, D.C. 20004-1206
(202) 942-5000 telephone
(202) 942-5999 facsimile

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FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.	APPLICATION NO.
21027.002/P30753US00	10/590,211
APPLICANTS	
Jean-Marie BUERSTEDDE *et al.*	
FILING DATE	GROUP
August 22, 2006	To Be Assigned

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1						
	AB1						
	AC1						
	AD1						
	AE1						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AF1	WO 00/22111	04/2000	WIPO			Yes No
	AG1	WO 02/100998	12/2002	WIPO			Yes No
	AH1						Yes No
	AI1						Yes No
	AJ1						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AK1	Arakawa *et al.*, "Immunoglobulin gene hyperconversion ongoing in chicken splenic germinal centers", *The EMBO Journal* 15(10):2540-2546 (1996)
	AL1	Arakawa *et al.*, "Oligoclonal Development of B Cells Bearing Discrete Ig Chains in Chicken Single Germinal Centers", *The Journal of Immunology* 160:4232-4241 (1998)
	AM1	Arakawa *et al.*, "Mutant IoxP vectors for selectable marker recycle and conditional knock-outs", *BMC Biotechnology* 1:7 (2001)
	AN1	Arakawa *et al.*, "Requirement of the Activation-Induced Deaminase (AID) Gene for Immunoglobulin Gene Conversion", *Science* 295:1301-1306 (2002)
	AO1	Arakawa *et al.*, "Immunoglobulin Gene Conversion: Insights From Bursal B Cells and the DT40 Cell Line", *Developmental Dynamics* 229:458-464 (2004)
	AP1	Bachl *et al.*, "An immunoglobulin mutator that targets G-C base pairs", *Proc. Natl. Acad. Sci. USA*, 93:851-855 (1996)

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 21027.002/P30753US00	APPLICATION NO. 10/590,211
	APPLICANTS Jean-Marie BUERSTEDDE *et al.*	
	FILING DATE August 22, 2006	GROUP To Be Assigned

	AQ1	Barreto *et al.*, "C-Terminal Deletion of AID Uncouples Class Switch Recombination from Somatic Hypermutation and Gene Conversion", *Molecular Cell* 12:501-508 (2003)
	AR1	Bezzubova *et al.*, "Reduced X-Ray Resistance and Homologous Recombination Frequencies in a RAD54$^{-/-}$ Mutant of the Chicken DT40 Cell Line", *Cell* 89:185-193 (1997)
	AS1	Buerstedde *et al.*, "Light chain gene conversion continues at high rate in an ALV-induced cell line", *The EMBO Journal* 9(3):921-927 (1990)
	AT1	Buerstedde *et al.*, "Increased Ratio of Targeted to Random Integration after Transfection of Chicken B Cell Lines", *Cell* 67:179-188 (1991)
	AU1	Butler, "Immunoglobulin diversity, B-cell and antibody repertoire development in large farm animals", *Rev. sci. tech. Off. int. Epiz.* 17(1):43-70 (1998)
	AV1	Carlson *et al.*, "Templated insertions in the rearranged chicked Ig_L *V* gene segment arise by intrachromosomal gene conversion", *Genes & Development* 4:536-547 (1990)
	AW1	Diaz *et al.*, "Evolution of somatic hypermutation and gene conversion in adaptive immunity", *Immunological Reviews* 162:13-24 (1998)
	AX1	Di Noia *et al.*, "Altering the pathway of immunoglobulin hypermutation by inhibiting uracil-DNA glycosylase", *Nature* 419:43-48 (2002)
	AY1	Drake *et al.*, "Rates of Spontaneous Mutation", *Genetics* 148:1667-1686 (1998)
	AZ1	Faili *et al.*, "AID-dependent somatic hypermutation occurs as a DNA single-strand event in the BL2 cell line", *Nature Immunology* 3(9):815-821 (2002)
	AA2	Lebecque *et al.*, "Boundaries of Somatic Mutation in Rearranged Immunoglobulin Genes: 5' Boundary is Near the Promoter, and 3' Boundary is ~1 kb from V(D)J Gene", *J. Exp. Med.* 172:1717-1727 (1990)
	AB2	Lundberg *et al.*, "High-fidelity amplification using a thermostable DNA polymerase isolated from *Pyrococcus furiosus*", *Gene* 108:1-6 (1991)
	AC2	Martin *et al.*, "Somatic hypermutation of the AID transgene in B and non-B cells", *PNAS* 99(19):12304-12308 (2002)

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	AD2	Milstein *et al.*, "The maturation of the antibody response", *Immunoglobulin Genes*, 2nd Edition, pages 57-81 (1995)
	AE2	Muramatsu *et al.*, "Specific Expression of Activation-induced Cytidine Deaminase (AID), a Novel Member of the RNA-editing Deaminase Family in Germinal Center B Cells", *The Journal of Biological Chemistry* 274(26):18470-18476 (1999)
	AF2	Muramatsu *et al.*, "Class Switch Recombination and Hypermutation Require Activation-Induced Cytidine Deaminase (AID), a Potential RNA Editing Enzyme", *Cell* 102:553-563 (2000)
	AG2	Revy *et al.*, "Activation-Induced Cytidine Deaminase (AID) Deficiency Causes the Autosomal Recessive Form of the Hyper-IgM Syndrome (HIGM2)", *Cell* 102:565-575 (2000)
	AH2	Reynaud *et al.*, "A Hyperconversion Mechanism Generates the Chicken Light Chain Preimmune Repertoire", *Cell* 48:379-388 (1987)
	AI2	Sale *et al.*, "TdT-Accessible Breaks Are Scattered over the Immunoglobulin V Domain in a Constitutively Hypermutating B Cell Line", *Immunity* 9:859-869 (1998)
	AJ2	Sale *et al.*, "Ablation of XRCC2/3 transforms immunoglobulin V gene conversion into somatic hypermutation", *Nature* 412:921-926 (2001)
	AK2	Ta *et al.*, "AID mutant analyses indicate requirement for class-switch-specific cofactors", *Nature Immunology* 4(9):843-848 (2003)
	AL2	Yélamos *et al.*, "Targeting of non-Ig sequences in place of the V segment by somatic hypermutation", *Nature* 376:225-229 (1995)
	AM2	Yoshikawa *et al.*, "AID Enzyme-Induced Hypermutation in an Actively Transcribed Gene in Fibroblasts", *Science* 296:2033-2036 (2002)

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